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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,811	02/07/2002	Theodore Conard	CSCO-69301	2828

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WAGNER, MURABITO & HAO LLP
Third Floor
Two North Market Street
San Jose, CA 95113

EXAMINER	
MEUCCI, MICHAEL D	
ART UNIT	**PAPER NUMBER**
2142	

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/071,811	CONARD ET AL.	
	Examiner	Art Unit	
	Michael D Meucci	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 February 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. In particular, the use of "the present invention" is objected to on lines 2 and 11-12 of the abstract. Correction is required. See MPEP § 608.01(b).

2. The first sentence of the abstract is objected to because it is a fragment. Correction is required.

Drawings

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figures 1 and 2 contain borderlines. Applicant is advised to

employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Objections

4. To make the claims clearer, the examiner recommends replacing "A computer-useable medium" in claims 15-21 to --A computer-readable medium-- on line 1 of each claim.

5. Examiner suggests amending claims 6, 13, and 20 to state --schedule for initiating said receiving *of said second hardware configuration*-- to clarify the claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 5, 8, 12, 15, 19, 22, and 26 rejected under 35 U.S.C. 102(e) as being anticipated by Matthews Jr. et al. (U.S. 6,457,125 B1) hereinafter referred to as Matthews.

a. As per claims 1, 15, and 22, Matthews teaches: storing a first hardware configuration of said networked communications device ("existing configuration of the programmable logic blocks" of lines 45-46 of column 1); receiving a second hardware configuration over a network, wherein said second hardware configuration is received into a memory of said networked communications device (lines 42-50 of column 1); and programming a programmable logic unit on said networked communications device according to said second hardware configuration (lines 42-67 of column 1).

b. As per claims 5, 19, and 26, Matthews teaches: said method further comprises verifying security information (line 57 of column 3 through line 9 of column 4).

c. As per claim 8, Matthews teaches: a bus (item 150 of Fig. 1); a memory unit coupled to said bus (lines 1-12 of column 2); a processor coupled to said bus, said processor executing a method for updating a hardware configuration of a networked communications device (lines 1-12 of column 2); storing a first hardware configuration of said networked communications device ("existing configuration of the programmable logic blocks" of lines 45-46 of column 1); receiving a second hardware configuration over a network, wherein said second hardware configuration is received into a memory of said networked communications device (lines 42-50 of column 1); and programming a programmable logic unit on said networked communications device according to said second hardware configuration (lines 42-67 of column 1).

d. As per claim 12, Matthews teaches: said method further comprises verifying security information (line 57 of column 3 through line 9 of column 4).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 2-4, 9-11, 16-18, and 23-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews as applied to claims 1, 8, 15, and 22 respectively above, in view of Collins (U.S. 5,671,355).

a. As per claims 2-3, 9-10, 16-17, and 23-24, Matthews fails to teach: said networked communications device is a router or a switch. However, Collins discloses: "With this basic design, the reconfigurable network interface 10 has not only the capacity to provide different protocol support such as ARCNet, Ethernet, Token Ring, etc., but also has the ability to take on multi-level communications capabilities and thus perform the function of a hub, bridge, router, brouter, or gateway," (lines 29-34 of column 11). A router has all the capabilities of a switch; therefore, a switch can be considered a subset of routers. In this instance, the router disclosed in Collins teaches all limitations of the switch.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the networked communications device as a router or a switch. "Once the physical and datalink layers of the OSI model are established by the means of the reconfigurable bus interface 22 and reconfigurable transceiver 14, the reconfigurable network interface 10 is capable of providing the remaining layers of the

OSI model through software emulation with the reconfigurable controller 12," (lines 23-29 of column 11 in Collins). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the networked communications device as a router or a switch in the system as taught by Matthews.

b. As per claims 4, 11, and 18, Matthews teaches: storing said first hardware description in non-volatile memory (lines 37-46 of column 1).

Matthews fails to teach: collecting information, wherein a component of said networked communications device sends a configuration description to a processor of said networked communications device; and creating said first hardware description, wherein said processor creates said first hardware description using said configuration description. However, Collins discloses: "Such a device without the network and bus type determination means 25 would require that configuration information be chosen manually. Such manual configuration would use a configuration program running on the host computer and may include a questionnaire providing a list of check boxes listing all possible configuration setup parameters. The user would simply check the appropriate boxes or other user interface devices in order to send the desired configuration information to the interface device 10 through the host computer bus, or to send configuration information stored on-board in non-volatile memory 20 to the desired reconfigurable element 12, 14, or 22," (lines 19-31 of column 8).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to collect information, wherein a component of said networked communications device sends a configuration description to a processor of said

networked communications device; and create said first hardware description, wherein said processor creates said first hardware description using said configuration description. "Once the bus type and network type are identified, the configuration controller 46 directs configuration instructions preferably stored in EPROM 20 to the particular reconfigurable device 12, 14, or 22 addressing each through the configuration address bus 34. The network and bus type determination means 25 may be implemented with a neural net processor such as an Intel NI1000 Recognition Accelerator or Bell Labs NET32K processor or any other device which provides the required monitoring, comparison, and controller functions," (lines 51-60 of column 7 in Collins). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to collect information, wherein a component of said networked communications device sends a configuration description to a processor of said networked communications device; and create said first hardware description, wherein said processor creates said first hardware description using said configuration description in the system as taught by Matthews.

c. As per claim 25, Matthews fails to teach: collecting a configuration description of a component of said networked communications device and a means for using said configuration description in creating said first hardware description. However, Collins discloses: "Although the preferred form of the invention as shown in FIG. 1 includes separate network and bus type determination means 25 and external configuration input means 52, a device embodying the principles of the invention could include only the external input 50, port 48, and external configuration input means 52

through which configuration information is loaded into each of the reconfigurable devices, reconfigurable controller 12, reconfigurable transceiver 14, and reconfigurable bus interface 22. Such a device without the network and bus type determination means 25 would require that configuration information be chosen manually. Such manual configuration would use a configuration program running on the host computer and may include a questionnaire providing a list of check boxes listing all possible configuration setup parameters. The user would simply check the appropriate boxes or other user interface devices in order to send the desired configuration information to the interface device 10 through the host computer bus, or to send configuration information stored on-board in non-volatile memory 20 to the desired reconfigurable element 12, 14, or 22," (lines 11-31 of column 8).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to collect a configuration description of a component of said networked communications device and have a means for using said configuration description in creating said first hardware description. "Once the bus type and network type are identified, the configuration controller 46 directs configuration instructions preferably stored in EPROM 20 to the particular reconfigurable device 12, 14, or 22 addressing each through the configuration address bus 34. The network and bus type determination means 25 may be implemented with a neural net processor such as an Intel NI1000 Recognition Accelerator or Bell Labs NET32K processor or any other device which provides the required monitoring, comparison, and controller functions," (lines 51-60 of column 7 in Collins). It is for this reason that one of ordinary skill in the

art at the time of the applicant's invention would have been motivated to collect a configuration description of a component of said networked communications device and have a means for using said configuration description in creating said first hardware description in the system as taught by Matthews.

10. Claims 6-7, 13-14, and 20-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews as applied to claims 1, 8, and 15 respectively above, in view of Fletcher et al. (U.S. 6,009,274) hereinafter referred to as Fletcher.

a. As per claims 6, 13, and 20, Matthews fails to teach: configuring said networked communications device with a schedule for initiating said receiving. However, Fletcher discloses: "In one embodiment, ASU agents receive the broadcast information and compare the latest version information with the version levels of the components that they are currently running. If there is any discrepancy, ASU agents with down version components (components that are indicated outdated) respond by requesting updated versions accordingly, and await to be updated upon a scheduled Auto update time slot," (lines 53-60 of column 10).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to configure the networked communications device with a schedule for initiating the receiving of the second hardware configuration. "An update control file in the ASU server controls the scheduling of the update process. The control file controls the number of nodes (agents) that are updated and when they are updated. For example, if thousands of agents require updating, the control file can schedule updating

to be done one agent at a time, or several agents at a time (burst-mode), or even all agents at once," (lines 27-33 of column 12 in Fletcher). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to configure the networked communications device with a schedule for initiating the receiving of the second hardware configuration in the system as taught by Matthews.

b. As per claim 7, 14, and 21, Matthews fails to teach: comparing the first hardware configuration with the second hardware configuration. However, Fletcher discloses: "In one embodiment, ASU agents receive the broadcast information and compare the latest version information with the version levels of the components that they are currently running," (lines 53-56 of column 10).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to compare the first hardware configuration with the second hardware configuration. "If there is any discrepancy, ASU agents with down version components (components that are indicated outdated) respond by requesting updated versions accordingly, and await to be updated upon a scheduled Auto update time slot," (lines 56-60 of column 10 in Fletcher). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to compare the first hardware configuration with the second hardware configuration in the system as taught by Matthews.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Logue et al. (U.S. 4,268,908) discloses modular macroprocessing system comprising a microprocessor and an extendable number of programmed logic arrays.

Lesch (U.S. 5,521,833) discloses method for programming programmable integrated circuits.

Ho et al. (5,535,368) discloses automatically-configuring memory subsystem.

Van Den Bout et al. (U.S. 5,537,295) discloses universal reconfigurable printed circuit board.

Richman et al. (U.S. 5,655,148) discloses method for automatically configuring devices without prior configuration information.

Hansen (U.S. 5,819,042) discloses method for guided configuration of network and inter-network devices.

Banaska et al. (U.S. 5,918,194) discloses integrated modular measurement system having configurable firmware architecture and modular mechanical parts.

Smith (U.S. 6,085,317) discloses reconfigurable computer architecture using programmable logic devices.

Teng et al. (U.S. 6,094,679) discloses distribution of software in a computer network environment.

Hartmann (U.S. 6,096,091) discloses dynamically reconfigurable logic networks interconnected by fall-through FIFOs for flexible processing in a system-on-a-chip.

Smtih (U.S. 6,219,785 B1) discloses reconfigurable computer architecture using programmable logic devices.

Suzuki (U.S. 6,505,338 B1) discloses medium with definition of interface recorded thereon, verification method for feasibility to connect given circuit and method of generating signal pattern.

St. Pierre, Jr. et al. (U.S. 6,539,510 B1) discloses interface board for receiving modular interface cards.

Dey (U.S. 6,687,710 B1) discloses intellectual property library management system.

Hughes (U.S. 6,854,009 B1) discloses networked computer system and software/hardware configuration.

Lahiri et al. (U.S. 2002/0129181 A1) discloses high-performance communication architecture for circuit designs.

Edara et al. (U.S. 2002/0144045 A1) discloses method and apparatus for providing a modular system on-chip interface.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (571) 272-3892. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey, can be reached at (571) 272-3896. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).